**Speciation and Patterns of Evolution Note Maker**

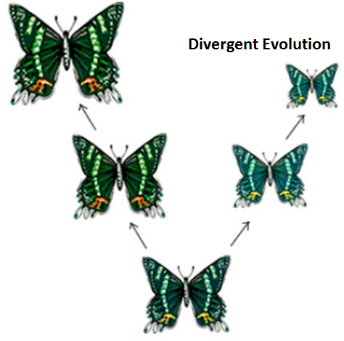
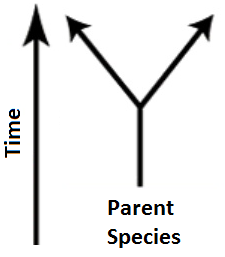
NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Speciation**

|  |  |
| --- | --- |
| According to the Amoeba Sisters Video on Speciation, what is speciation? | What does it mean to you? |
|  |  |

**Part 1: Patterns of Evolution**

Divergent Evolution



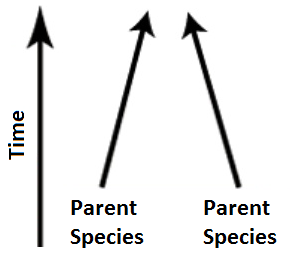
WHAT DO YOU SEE

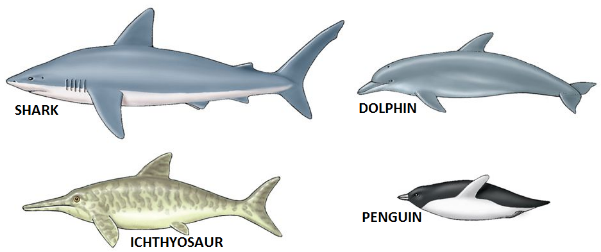


Convergent Evolution

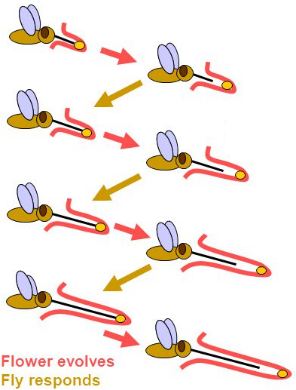
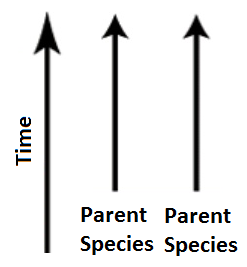
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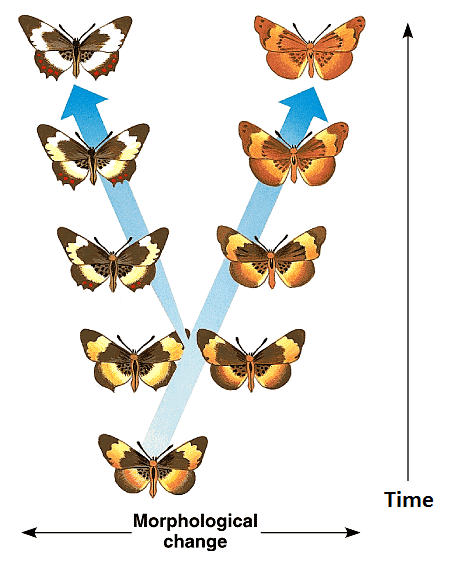
Co-Evolution



WHAT DO YOU SEE



Gradualism



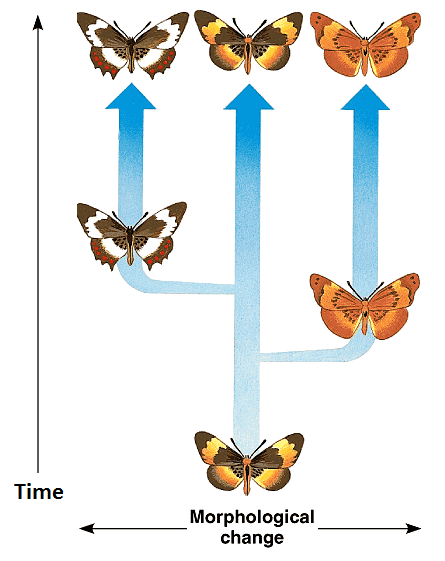
WHAT DO YOU SEE



Punctuated Equilibrium

WHAT DO YOU SEE





**Part 2: You decide the Pattern of Evolution**

In the table below, decide what pattern of evolution is described.

Divergent Evolution Convergent Evolution Coevolution Gradualism Punctuated Equilibrium

|  |  |
| --- | --- |
| Description | Pattern of Evolution |
| |  | | --- | | In the ocean surrounding Antarctica, there are fish that survive the cold water by using a molecule made of glycoproteins that circulates the blood and keeps it from freezing. Certain kinds of worms that live in the Arctic ocean also make antifreeze proteins that help them live in icy water. | |  |
| |  | | --- | | Ants are the correct size and weight needed to open the flowers for the peony plant. The peony plant provides food for the ant and the ant fertilizes the peony’s flowers | |  |
| |  | | --- | | Horse evolution shows long stable periods of little evolution interrupted by brief periods of rapid change. | |  |
| |  | | --- | | A kit fox lives in the desert and has large ears with greater surface area that keep the fox from getting overheated. The red fox lives in the forest and has a red coat that keeps it camouflaged. | |  |
| |  | | --- | | Hummingbirds have a beak just the right length to reach the nectar in a cardinal flower and as they feed their foreheads bump into the pollen structure. Cardinal flowers are red which hummingbirds can see but bees can’t. Cardinal flower’s pollen structure is just the right length for the hummingbird to pick up pollen as it feeds. | |  |
| |  | | --- | | The *Galloti atlantica* and *Galloti galloti* lizards evolved through natural selection from a common ancestor into a wide variety of different looking lizards. | |  |
| |  | | --- | | Abrupt appearance of new species in the fossil records | |  |
| |  | | --- | | The Galápagos tortoises share a common ancestor, but have necks of different lengths to best reach the food they need in their environment. | |  |
| This kind of evolution is proven by DNA analysis and results in organisms with different ancestors becoming more alike as they adapt to similar environments. |  |
| Whales, sharks, and penguins all have streamlined bodies and fins/flippers for moving in water even though they belong in different classes of animals (mammals, fish, and birds). |  |
| The Galápogos finches evolved through natural selection from a common ancestor into a wide variety of different looking species. |  |
| Ostriches (birds) and giraffes (mammals) are both native to the savannahs of Africa. They share the same characteristic of a very long neck. |  |
| The beaver in North America and the capybara in South America share a common ancestor, but have evolved over time to look different. |  |
| Ostriches are native to the savannahs of Africa, while penguins live in the polar regions. Although ostriches and penguins are closely-related, they look very different. |  |
| Bees don’t see red, but do see yellow, blue, and ultra-violet light. Thus, bee-pollinated flowers are mostly yellow or blue with UV nectar guides (landing patterns) to guide the bee. They usually have a small, narrow floral tube to fit the tongue-length of that species of bee. |  |